ABSTRACT OF THE DISCLOSURE

A method of transposing an array using diagonal access. An array of m rows, m diagonals up, and m diagonals down. Rows and diagonals access the same array using different mapping functions. Each row comprising n data element. Each diagonal comprising of n data element. First, every row of the array is loaded into the diagonals up with same index number in a new storage array. Second, every row of the new array is rotated by its index number. Third, the new array is stored back in the original array using the diagonals down. The result, a transposed array of the original array is completed.